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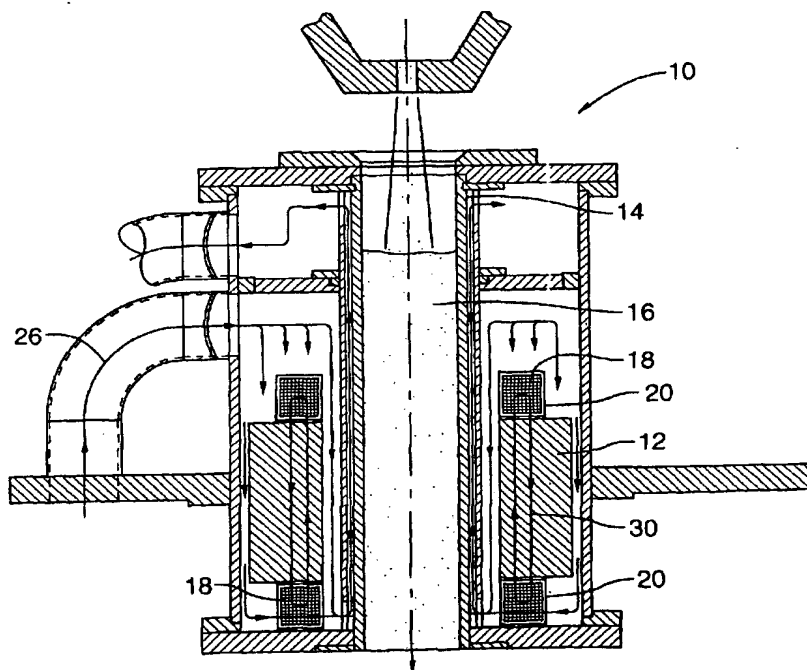
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(54) Title: COOLING ELECTROMAGNETIC STIRRERS



(57) Abstract: Cooling of the electrical coils of an electromagnetic stirrer is effected using a ferrofluid. An electromagnetic stirrer, comprising: a cylindrical housing having an axial mold tube for receiving molten metal, an inner wall spaced from the mold tube and defining a cooling water flow channel, an electromagnetic stirring assembly surrounding the inner wall and spaced therefrom and from an outer wall, said stirring assembly comprising a yoke, a plurality of magnetic poles and electrical windings mounted on each of the magnetic poles, said plurality of magnetic poles and said electrical windings mounted on the magnetic poles being located in enclosed non-magnetic heat conductive housings filled with dielectric ferrofluid, an annular wall dividing said cylindrical housing into a larger lower chamber in which are located said enclosed non-magnetic heat conductive housings and a smaller

upper chamber, said inner wall defining having an inlet to said cooling water flow channel in fluid flow communication with the lower end of said lower chamber and an outlet from said cooling water flow channel in fluid flow communication with the upper end of said upper chamber, a cooling water inlet in fluid flow communication with the upper end of said lower chamber and a cooling water outlet in fluid flow communication with said upper chamber.

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